

- ◆ 全国中文核心期刊
- ◆ 中国科学引文数据库
- ◆ 中文科技期刊数据库收录期刊
- ◆ 中国期刊全文数据库全文收录期刊
- ◆ 中国生物医学文献数据库 (CBM)
- ◆ 中国学术期刊综合评价数据库统计源期刊
- ◆ 中国科技论文统计源期刊 (中国科技核心期刊)
- ◆ 万方数据—数字化期刊群 (中国核心期刊遴选数据库)

- ◆ RCCSE中国核心学术期刊
- ◆ 美国化学文摘 (CA) 收录期刊
- ◆ 波兰哥白尼索引 (IC) 收录期刊
- ◆ 美国乌利希期刊指南 (Ulrich PD) 收录期刊
- ◆ 美国《剑桥科学文摘 (自然科学)》(CSA) 收录期刊
- ◆ 日本科学技术振兴机构中国文献数据库 (JST) 收录期刊
- ◆ 英国国际农业与生物科学研究中心数据库 (CABI) 收录期刊

环境科学与技术

Huanjing Kexue yu Jishu

ISSN1003—6504

Vol.41 No.6

2018



Environmental Science & Technology

ISSN 1003-6504



万方数据

湖北省环境保护厅 主管
湖北省环境科学研究院 主办

目 次

中国5个大气本底站观测的CH₄浓度变化规律
..... 杨倩, 官莉, 陶法, 梁苗, 孙万启(1)

天津市春季颗粒物污染特征及典型沙尘过程分析
..... 孙初, 陈冠益, 董海燕(8)

光照水库夏季分层期间二氧化碳分压分布特征
..... 曹玉平, 袁热林, 焦树林, 张倩, 邓飞艳(15)

乌鲁木齐夏季近地面CO₂浓度空间分布特征
..... 蔡寅潮, 韩炜, 管文柯, 费兵强, 马霄华, 党亚玲(22)

北京西山冬季针叶树种叶片滞纳PM_{2.5}功能研究
..... 陈波, 李少宁, 鲁绍伟, 刘海龙, 赵东波, 陈鹏飞(28)

生物硫铁对镉污染水稻发芽的保护研究
..... 闫沛涵, 李旭东, 谢翼飞, 兰书焕, 袁伟, 梁雅洁(34)

野大豆茎叶水浸液对4种牧草的化感效应探究
..... 张卫红, 刘大林, 孙盛楠, 吴亚, 陈鸣晖, 闫前进(39)

给水厂残泥对稻田土壤溶液毒死蜱残留的影响
..... 付广义, 许友泽, 裴元生, 元赞, 赵媛媛(45)

电氧化-电絮凝对柠檬酸-镍的破络机制研究
..... 赵甘林, 徐海音, 罗远玲, 杨朝晖(50)

新型Fe₃O₄@GO@TiO₂光-芬顿催化剂降解刚果红
..... 张玲, 蔡颖, 黄春梅, 陈康子, 肖凯军, 濮俊, 陈静(57)

响应面法优化制备新型重金属絮凝剂MAAPAM
..... 管映兵, 王刚, 徐敏, 常青(63)

电解-水解-DMBR处理模拟造纸废水中DOM特性
..... 凌琪, 孔莹莹, 伍昌年, 王敏, 王晏平, 严南峡(70)

钛白石膏改性处理与光催化降解酸性桃红研究
..... 胡佳明, 杨萌, 熊如意, 刘立明, 黄应平, 王坎(76)

废旧线路板富集体中金属与非金属的分离研究
..... 张玉改, 谭秋峡, 张莎, 陈梦君(81)

垃圾渗滤液处理中CH₄的释放规律及影响因素研究:以生活垃圾焚烧发电厂为例
..... 华佳, 刘通, 柏双友, 李治阳, 张健康(86)

不同污泥龄下腐殖土SBR工艺运行效果	魏传银, 吴敏, 朱睿(92)
生物沥浸法改善河道底泥脱水性能的效果	石明岩, 刘恒甫, 石云峰, 王施政, 朱月琪, 简国丹(97)
动态模拟功能土原位覆盖抑制底泥磷释放	陈春梅, 刘国, 夏蕾, 张雯, 许小芳, 辜昊(103)
新型多孔水泥基硅橡胶吸声材料的制备	邓倩, 汪远, 张凯, 李丽, 胡将军(110)
克氏原螯虾壳虾青素提取条件的优化	宋庆洋, 米武娟, 王斌梁, 黄宇波, 马达文, 毕永红(115)
水库水温模型研究综述	毕晓静, 陆颖, 袁旭, 赵著燕(120)
氧化法烟气脱硝技术的研究进展	李晓东, 高建民, 杜谦, 高继慧, 吴少华(127)
城市土壤重金属空间分布、污染与来源	李小平, 高瑜, 张蒙, 孙薛梦, 艾雨为, 蔡月, 王丽娜, 张钰超, 刘彬(138)
额尔齐斯河土壤重金属含量空间变异特征	史磊, 周华荣, 温彬(147)
叶尔羌河流域土地覆被生态服务价值变化分析	张雪琪, 满苏尔·沙比提, 马国飞(152)
伊犁河流域最大植被覆盖度的时空动态变化	王洪亮, 冯爱萍, 高彦华, 王雪蕾(161)
丹江口典型区域土壤侵蚀年内季节性分布研究	冯奇, 肖飞, 杜耘, 王立辉(168)
基于SWAT模型的煤炭开采区河道径流变化识别	吴喜军, 董颖(175)
气候变化下的流域面源污染响应模型评估	沙健, 路瑞, 续衍雪, 尚云涛, 李雪, 曹佳蕊, 陈奕霖(181)
京津冀区域生态文明评价研究	陈润羊, 张贵祥, 胡曾曾, 冯军宁(188)
基于全球视角的经济发展与碳排放关系研究	陈书强, 邓晓卫, 王泽宇(197)
《环境科学与技术》编辑部关于不法分子冒用《环境科学与技术》编辑部名义征稿欺诈的郑重声明	封三

期刊基本参数: CN 42-1245/X*1978*m*A4*210*zh*P*¥40*5000*31*2018-06

本期责任编辑: 刘慕凡

CONTENTS

Changes of CH₄ Concentrations Obtained by Ground-based Observations at Five Atmospheric Background Stations in China.....
.....YANG Qian, GUAN Li, TAO Fa LIANG Miao, SUN Wanqi(1)

Pollution Characteristics of Particulate Matters and a Dust Storm Episode in the Spring of Tianjin.....
.....SUN Ren, CHEN Guanyi, DONG Haiyan(8)

Distribution Characteristics of Partial Pressure of Carbon Dioxide during Thermal Stratification in Summer in Guangzhao Reservoir.....
.....CAO Yuping, YUAN Relin, JIAO Shulin, ZHANG Qian, DENG Feiyan(15)

Space Distribution Characteristics of Near-surface CO₂ Concentration in Summer of Urumqi.....
.....CAI Yinchao, HAN Wei, GUAN Wenke, FEI Bingqiang, MA Xiaohua, DANG Yaling(22)

Function Study of Coniferous Species Leaf Retention of PM_{2.5} in Winter in Xishan Mountain of Beijing.....
.....CHEN Bo, LI Shaoning, LU Shaowei, LIU Hailong, ZHAO Dongbo, CHEN Pengfei(28)

Application of Biological Iron Sulfide Composites in Protection of Rice Germination in Cadmium Contaminated Paddy Field.....
.....YAN Peihan, LI Xudong, XIE Yifei, LAN Shuhuan, YUAN Wei, LIANG Yajie(34)

Research of Allelopathic Effect on 4 Forage Grass in the *Glycine soja* Water Extract.....
.....ZHANG Weihong, LIU Dalin, SUN Shengnan, WU Ya, CHEN Minghui, YAN Qianjin(39)

Effect of Drinking Water Treatment Residuals on the Chlorpyrifos Residues in Paddy Soil.....
.....FU Guangyi, XU Youze, PEI Yuansheng, QI Yun, ZHAO Yuanyuan(45)

Study on Mechanism of Citrate-Ni De-complexation by Electro-oxidation-electrocoagulation Process.....
.....ZHAO Ganlin, XU Haiyin, LUO Yuanling, YANG Zhaohui(50)

Degradation of Congo Red by a New Photo-Fenton Catalyst of Fe₃O₄@GO@TiO₂.....
.....ZHANG Ling, CAI Ying, HUANG Chunmei, CHEN Kangzi, XIAO Kaijun, PU Jun, CHEN Jing(57)

Preparation of Novel Heavy Metal Flocculant MAAPAM Optimized by Response Surface Methodology.....
.....GUAN Yingbing, WANG Gang, XU Min, CHANG Qing(63)

Characteristics of Dissolved Organic Matters in Papermaking Wastewater by Electrolysis-Hydrolysis-DMBR Process.....
.....LING Qi, KONG Yingying, WU Changnian, WANG Min, WANG Yanping, YAN Nanxia(70)

Photo-degradation of Sulforhodamine B by Modified Titanium Gypsum.....
.....HU Jiaming, YANG Meng, XIONG Ruyi, LIU Liming, HUANG Yingping, WANG Kan(76)

Metal and Nonmetal Separation by Slurry Electrolysis for Waste Printed Circuit Boards Metal Concentrated Scraps.....
.....ZHANG Yugai, TAN Qiuxia, ZHANG Sha, CHEN Mengjun(81)

Study on CH ₄ Release Rule and Influence Factor during Leachate Treatment Process—Taking Waste Incineration Power Plant as an Example·····	HUA Jia, LIU Tong, BAI Shuangyou, LI Zhiyang, ZHANG Jiankang(86)
Effects of SRT on Operation Efficiency of Humus Soil—SBR Process·····	·····WEI Chuanyin, WU Min, ZHU Rui(92)
Improving Dewaterability of Dredged River—Sediment by Bioleaching Technology·····	·····SHI Mingyan, LIU Hengfu, SHI Yunfeng, WANG Shizheng, ZHU Yueqi, JIAN Guodan(97)
Red Soil for Sediment Capping to Control the Phosphorus Release under Flow Conditions·····	·····CHEN Chunmei, LIU Guo, XIA Lei, ZHANG Wen, XU Xiaofang, GU Hao(103)
Preparation of New Porous Cement—based Silicone Rubber Sound Absorption Material·····	·····DENG Qian, WANG Yuan, ZHANG Kai, LI Li, HU Jiangjun(110)
Optimization of Astaxanthin Extraction Technology from <i>Procambarus clarkii</i> ·····	·····SONG Qingyang, MI Wujuan, WANG Binliang, HUANG Yubo, MA Dawen, BI Yonghong(115)
Review of Water Temperature Model Applications in Reservoir·····	·····BI Xiaojing, LU Ying, YUAN Xu, ZHAO Zhuyan(120)
Research Progress of Flue—gas De—nitrication Technology Based on Oxidation·····	·····LI Xiaodong, GAO Jianmin, DU Qian, GAO Jihui, WU Shaohua(127)
Heavy Metals in Urban Soil: Spatial Distribution, Source and Pollution Assessment·····	·····LI Xiaoping, GAO Yu, ZHANG Meng, SUN Xuemeng, AI Yuwei, CAI Yue, WANG Lina, ZHANG Yuchao, LIU Bin(138)
Spatial Variabilities of Heavy Metals and Salt Contents in Soils of Irtysh River Basin·····	·····SHI Lei, ZHOU Huarong, WEN Bin(147)
Analysis on the Change of Land Use/Cover Ecological Service Value in Yarkand River Basin·····	·····ZHANG Xueqi, Mansur·Shabiti, MA Guofei(152)
Temporal—spatial Dynamic Change on Maximum Vegetation Coverage Degree of Ili River Basin·····	·····WANG Hongliang, FENG Aiping, GAO Yanhua, WANG Xuelei(161)
Evaluation of Seasonal Soil Erosion Distribution in Typical Area of Danjiangkou·····	·····FENG Qi, XIAO Fei, DU Yun, WANG Lihui(168)
Recognition of Runoff Changes in Mining Area Based on SWAT Model·····	·····WU Xijun, DONG Ying(175)
Estimation of Watershed Non—point Source Pollution Response toward Climate Change: a Coupled Modeling Approach·····	·····SHA Jian, LU Rui, XU Yanxue, SHANG Yuntao, LI Xue, CAO Jiarui, CHEN Yilin(181)
Study on Evaluation of Ecological Civilization of Beijing—Tianjin—Hebei·····	·····CHEN Runyang, ZHANG Guixiang, HU Zengzeng, FENG Junning(188)
Research on the Relationship between Economic Development and Carbon Emissions Based on Global Perspective·····	·····CHEN Shuqiang, DENG Xiaowei, WANG Zeyu(197)



善待臭氧 安享阳光
ACT OZONE FRIENDLY STAY SUN SAFE

中国保护臭氧层行动
Ozone Layer Protection In China

加速淘汰含氢氯氟烃

HCFC ACCELERATED PHASEOUT

2009–2010

基线水平
2009–2010平均值
Baseline
Average of 2009 and
2010 levels

2013

冻结在基线水平
Freeze at baseline

2015

削减基线水平10%
10% reduction of baseline

2020

削减基线水平35%
35% reduction of baseline

2025

削减基线水平67.5%
67.5% reduction of baseline

2030

削减基线水平97.5%
97.5% reduction of baseline

2040

2030–2040年
允许保留年均2.5%的维修用途

Annual average of 2.5% of baseline
for servicing during 2030–2040

HCFCs的生产和使用涉及化工、制冷空调、建筑保温、泡沫塑料以及医疗器械等行业的相关产品。加速淘汰HCFCs不仅对保护臭氧层意义重大，也会为减缓全球气候变化带来好处。

HCFC production and consumption involve products in a number of sectors, such as chemical production, refrigeration and air conditioning, building insulation, foam production and medical devices. By accelerating the phaseout of HCFCs, there are potentials for doubling benefits to the ozone and climate.